

PYKHITUNOVA, V. M., Cand of Geog Sci -- (diss) "The Climate of North-Eastern
Azerbaijan," Baku, 1959, 25 pp (Ministry of Higher and Secondary Special
Education, USSR. Azerbaijan State University im S. M. Kirov) (KL, 7-60-107)

PIKHTUNOVA, V.M.

Climatic characteristics of the Kuba-Khachmas massif [in
Azerbaijani with summary in Russian]. Dokl.AN Azerb.SSR
14 no.11:869-874 '58. (MIRA 11:12)

1. Institut geografii AN AzerSSR.
(Azerbaijan--Climate)

PYKHOV, V.G.

"Financing distilleries." P.K.Krivobokov. Reviewed by V.G.Pykhov.
Spir. prom. 21 no.1:42-43 '55. (MIRA 8:5)
(Distilling industries--Finance) (Krivobokov, P.K.)

PYKOSZ, T.

Bacteriology of otogenic brain abscess and its relation to therapy.
Polski tygod. lek 7 no. 41:1291-1295 13 Oct 1952. (CML 24:1)

1. Of the Laryngological Department (Head--Head-Physician--Tadeusz
Pykosz) of the Hospital imienia G. Narutowics in Krakow.

PYKOSZ, Tadeusz; OZOG-KOCZOROWSKA, Halina

Remote results of tonsillectomy. Polski tygod. lek. 10 no.36:
1174-1176 5 Sept 55.

1. Z Oddziału Laryngologicznego Miejskiego Szpitala im.
G. Narutowicza w Krakowie; Ordynator dr. med. Tadeusz Pykosz.
(TONSILS, surgery,
postop. compl.)

PYKOSZ, Tadeusz

Contribution to Frey's syndrome. Otolar.polska 14 no.2:263-265 '60.

1. Z Oddziału Laryngologicznego Szp. M. im. G.Narutowicza w Krakowie, Ordynator: dr med. T.Pykosz, Dyrektor: dr S.Bogdalski.
(PAROTID GLAND dis)
(SWEATING)

PIKOSZ, Tadeusz

Osteomas of the ethmoid cells. Pat. polska 5 no.3:211-215 July-
Sept 54.

1. Z Oddziału Laryngologicznego Szpitala Miejskiego im. G.Narutowicza
w Krakowie. Ordynator Oddziału: dr med. Tadeusz Pikosz.

(OSTEOMA,

ethmoid)

(ETHMOID BONE, neoplasms,
osteoma)

PYLAEV, A. M.

Pyleav, A. M. The Induction Method of Exploring for Ores. Jurnal Tekhnicheskoi Fiziki, Leningrad-Moscow, vol.2, No. 3/4, 1932, pp. 420-431.

PYLIK, S.

Production and laboratory tests of impregnating oils in the German Federal Republic.

(PRZEGLAD KOLEJOWY DROGOWY) (Warszawa, Poland) Vol. 10, no. 1, Jan. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

PIILAYEV, N.I., inzh.

Study of abrasion resistance of hydraulic turbine materials.
Energomashinostroenie 8 no.11:33-36 M '64. (MIRA 16:1)
(Hydraulic turbines)

DUL'NEV, V.B., kand.tekhn.nauk; PYLAYEV, N.I., inzh.

Abrasive wear and increase of the wear resistance of an hydraulic
turbine. Elek. sta. 32 no.11:46-49 N '61. (MIRA 14:11)
(Hydraulic turbines)

GORDEYEV, Grigoriy Stepanovich, prof.; PYLAYEVA, A.P., red.; FEDOTOVA,
A.F., tekhn. red.

[Problems in the economics of corn production in the U.S.A.]
Nekotorye voprosy ekonomiki proizvodstva kukuruzy v SShA. Gos.
izd-vo sel'khoz. lit-ry, 1958. 93 p. (MIRA 11:11)
(United States--Corn(Maize))

PYLAYEVA, H.P.
DUBINSKIY, Isaak Aleksandrovich; PYLAYEVA, A.P., red.; BALLOD, A.I., tekhn.
red.

[State farm production potentials; experience in reorganizing the
"Voskhod" State Farm] Rezervy sovkhosnogo proizvodstva; iz opyta
perestroiki raboy sovkhosa "Voskhod." Moskva, Gos. izd-vo sel'khoz.
lit-ry, 1957. 117 p. (MIRA 11:7)

(State farms)

PYLAYEVA, A.P.

IVANOV, Leonid Ivanovich; PYLAYEVA, A.P., red.; ZUBRILINA, Z.P., tekhn. red.

[Pattern for stockbreeding in Siberia] Tak nado vesti shivotnovodstvo
v Sibiri. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 79 p.
(Siberia—Stock and stockbreeding) (MIRA 11:7)

PYLAYEVA, A. P.

DIDOV, Ivan Stepanovich; SUBBOTIN, Gavril Petrovich; PYLAYEVA, A.P., red.
GUREVICH, M.M., tekhn.red.

[Economic improvement of collective flax farms; practices of
collective farms in Gzhatsk District] Pod"em ekonomiki l'novod-
cheskikh kol'khozov; iz opyta kol'khozov Gzhatskogo raiona. Moskva,
Gos. izd-vo sel'khoz. lit-ry, 1957. 142 p. (MIRA 11:4)
(Gzhatsk District--Flax)

PYLAJEVA, A.P.
LIBKIND, Aron Solomonovich; PYLAYEVA, A.P., red.; FEDOTOVA, A.F., tekhn.
red.

[Analyzing the economy of collective farms] Analiz ekonomiki kolkho-
zov. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1957. 227 p. (MIRA 11:4)
(Collective farms--Accounting)

PYLAYEVA, A.P., red.; DEYEVA, V.M., tekhn.red.; ZUBRILINA, Z.P.,
tekhn.red.

[Monetary wages on collective farms] Deneghnala oplata truda
v kolkhozakh. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1958. 109 p.
(MIRA 12:10)

(Collective farms)

(Wages)

KATSENELEBAUM, Zakhariy Solomonovich, prof.; PYLAYEVA, A.P., red.;
GUREVICH, M.M., tekhn.red.

[The turnover of assets in socialist agriculture] Krugoborot
sredstv v sotsialisticheskom sel'skom khoziaistve. Moskva, Gos.
izd-vo sel'khoz.lit-ry, 1959. 150 p. (MIRA 12:11)
(Agriculture--Finance)

PYLAYEVA, A.P.

LOBANOVA, Anna Aleksandrovna; RUMYANTSEVA, Tamara Vasil'yevna; KOSAUROV, S.D.,
red.; PYLAYEVA, A.P., red.; ZUBRILINA, Z.P., tekhn.red.

[Lowering labor expenditures in stock raising] Snizhenie satrat
truda v zhivotnovodstve. Moskva, Gos.izd-vo sel'khoz. lit-ry,
1958. 54 p. (MIRA 11:6)
(Stock and stock-breeding)

2

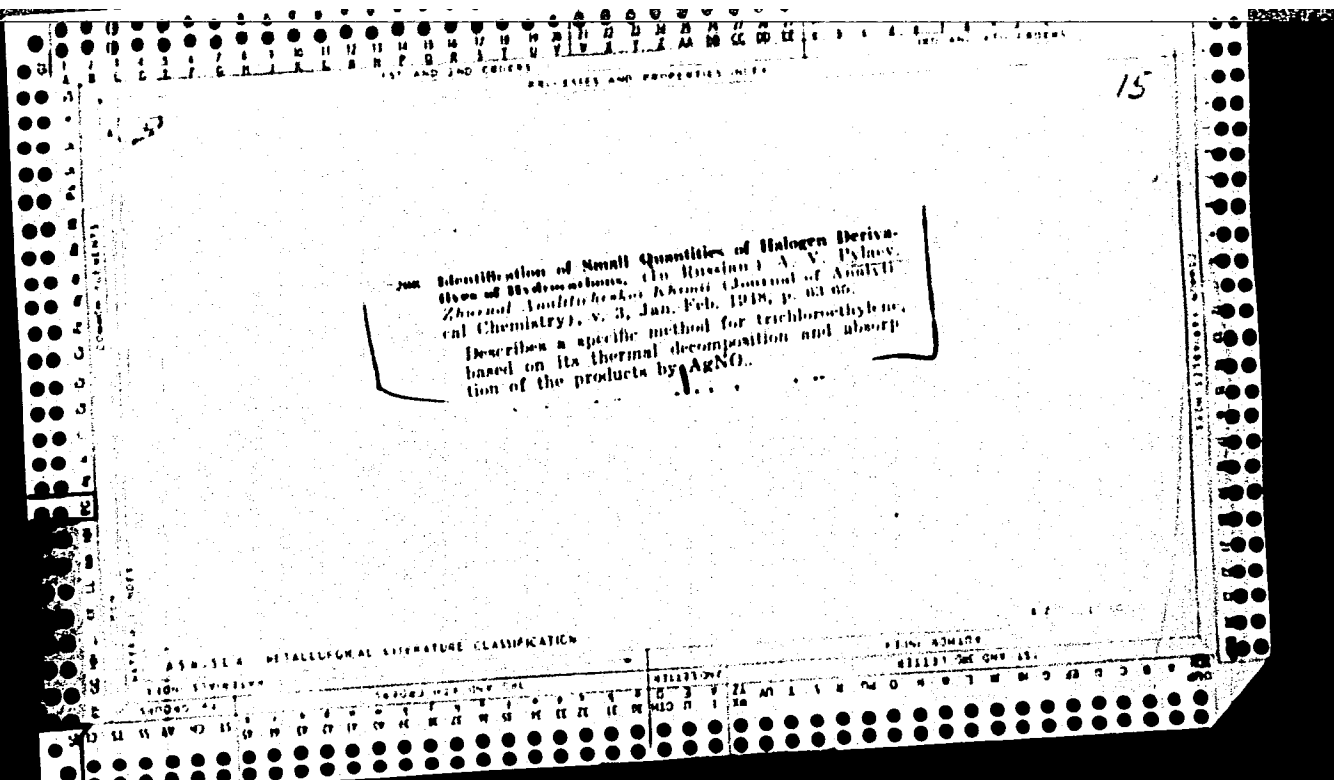
CA

Adsorptive properties of oxidized carbon for hydrogen
 sulfide and benzene vapor. S. A. Toropov and A. V.
 Pylarov. *Dokl. Akad. Nauk (J. Appl. Chem.)* 23,
 666-71 (1950).—Carbon, activated and oxidized by 1-N
 and heated in 10, 50, or 100% HNO₃, dried at 105-110°
 and heated 1 hr. to red glow, showed high adsorption for
 H₂S (1.8 mg./l. air flowing at 1.57 l./min.), in contrast to
 unoxidized C which did not adsorb H₂S. Activation with
 10% HNO₃ results in better adsorptive capacity than either
 50 or 100% HNO₃. Adsorption of C₆H₆ is highest if the
 length of the treatment with HNO₃ does not exceed 1-3
 hrs.; longer treatment impairs the adsorptive capacity for
 C₆H₆. Preliminary adsorption of H₂S on oxidized C reduces
 its adsorptive capacity for C₆H₆. N. Thom

1679. ADSORPTIVE PROPERTIES OF OXIDIZED CARBON FOR HYDROGEN SULFIDE AND BENZENE VAPOUR. Toropov, S. A. and Pylasov, A. V. (Zhur. Priklad. Khim. (J. Appl. Chem.), 1949, vol. 22, 568-571; abstr. in Chem. Abstr., 1950, vol. 44, 18-19).

Carbon, activated and oxidized by 1-3 hrs boiling in 10, 90 or 100% HNO_3 , dried at 105-110° and heated 1 hr to red glow, showed high adsorption for H_2S (1.8 m.g./l. air flowing at 1.57 l./min.), in contrast to unoxidized carbon which did not adsorb H_2S . Activation with 10% HNO_3 results in better adsorptive capacity than either 90 or 100% HNO_3 . Adsorption of C_6H_6 is highest if the length of the treatment with HNO_3 does not exceed 1-3 hrs; longer treatment impairs the adsorptive capacity for C_6H_6 . Preliminary adsorption of H_2S on oxidized carbon raises its adsorptive capacity for C_6H_6 .

TEST AND INS. CRITERIA		PROCESSING AND PROPERTIES DATA	
CA		7	
Test for small quantities of hydrocarbon halogen derivatives. A. V. Pylaev. <i>Zhar. Anal. Akm.</i> 3, 63-5 (1948). -- Pass air contg. a deriv., such as C_2H_5Cl, through an absorption tube filled with an absorbent, e.g., charcoal. Then, direct the air through a quartz tube kept at 800-900°; C_2H_5Cl present is oxidized: $2C_2H_5Cl + 5O \rightarrow 4Cl + H_2O + 4CO$. Pass the gases leaving the quartz tube into a 0.1% $AgNO_3$ soln. acidified with HNO_3. The wide test tube holding the $AgNO_3$ soln. is screened except for a round spot in its side through which a beam of light passes through from a source. The appearance of Cl in the soln. is signalled by the appearance of a Tyndall cone. This method is primarily intended for use in detg. the time it takes for a halogen deriv. to break through a given absorbent. To this end, the time from starting the flow of gas-contg. air through the absorbent to the time the Tyndall cone appears is recorded. M. Hirsch			
ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION			
SEARCHED INDEXED		ABSTRACTED	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	



1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
CA Improving mineral lubricating oils. V. K. Tsykhovskii and T. I. Pytkova. U.S.S.R. 67,622, Dec. 31, 1946. To improve the quality of oil a product contg. barium is used. This product is obtained by oxidation of purified kerosene, mixing the oxidation product with sandrying vegetable oil, and air-blowing the mixt. at 120-30° until a benzene-sol. product is formed. Adds. to U.S.S.R. 67,123 (C.A. 42, 5241b). M. Hensch																			
ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION										FROM DOMINY									
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61 62 63 64 65 66 67 68 69 70										71 72 73 74 75 76 77 78 79 80									
81 82 83 84 85 86 87 88 89 90										91 92 93 94 95 96 97 98 99 00									

1ST AND 2ND ORDER		PROCESSES AND PROPERTIES INDEX	
F		8	
2487. IMPROVING MINERAL LUBRICATING OILS. Tsyshovskii, V.K. and Pylaeva, T.I. (U.S.S.R. P. 67,622/1946; abstr. in Chem. Abstr. 1949, vol. 43, 3192). To improve the quality of oil a product containing lactones is used. This product is obtained by oxidation of purified kerosene, mixing the oxidation product with nondrying vegetable oil, and air-blowing the mixture at 120-130° until a benzene-soluble product is formed. Addition to U.S.S.R. P. 67,122,			
C.A.			
METALLURGICAL LITERATURE CLASSIFICATION		FROM SOURCE	
1ST AND 2ND ORDER		1ST AND 2ND ORDER	

NYLAVIV, N.I., kand. tekhn. nauk

Cavitation resistance of steel. Energomashtroenie 11 no. 8:42
ag '65.

(MIRA 18110)

PYLA YEV, N.I., inzh.

Cavitation resistance of stainless and carbon steels. Energoma-
shinostroenie 9 no.11:44-45 N '63. (MIRA 17:2)

PYLAYEV, N.I., inzh.

Cavitation erosion of Francis-type hydraulic turbines.
[Trudy] LMZ no.10:229-240 '64. (MIRA 18:12)

YEVDOKIMOV, A.A., inzh.; PYLAYEV, N.I., inzh.; PONOMAREV, V.Ya., inzh.

Laboratory tests of the plastic bushings of the gate apparatus
of hydraulic turbines. [Trudy] IMZ no.10:262-274 '64.

(MIRA 18:12)

POPOV, Ivan Gerasimovich, kand. ekon. nauk; KOVALEV, N.I.,
spets. nauchn. red.; PYLAYEVA, A.P., red.

[Mathematical methods in economic calculations for agri-
culture] Matematicheskie metody v ekonomicheskikh raschetakh
po sel'skomu khoziaistvu. Moskva, Kolos, 1964. 238 p.
(MIRA 17:10)

AREF'YEV, T.I., kand. ekon. nauk; BRASLAVETS, M.Ye., prof., doktor ekon. nauk; BROZGUL', M.M.; VLASOV, N.S., prof., doktor ekon. nauk; DUBROVA, P.F., doktor ekon. nauk; YESAULOV, P.A., kand. sel'khoz. nauk; ZAL'TSMAN, L.M., prof., doktor sel'khoz. nauk; KAL'M, P.A., dotsent, kandidat sel'skokhoz. nauk; KOSTSELETSKIY, N.A., kand. ekon. nauk; KRYLOV, V.S., kand. sel'khoz. nauk; LIBKIND, A.S., dots., kand. ekon. nauk; MAKAROV, N.P., prof., doktor ekon. nauk; OGLOBLIN, Ye.S., kand. sel'khoz. nauk; POLOVENKO, S.I., kand. ekon. nauk; POPOV, S.A., dots., kand. ekon. nauk; SAPIL'NIKOV, N.G., doktor ekon. nauk; TISHCHENKO, G.A., prof., kand. ekon. nauk; TYUTIN, V.A., prof., doktor ekon. nauk; YANYUSHKIN, M.F., kand. ekon. nauk; PYLAYEVA, A.P., red.; FREYDMAN, S.M., red.; SOKOLOVA, N.N., tekhn. red.

[Organization of socialist agricultural enterprises] Organizatsiia sotsialisticheskikh sel'skokhoziaistvennykh predpriatii; kurs lektsii. Moskva, Sel'khozizdat, 1963. 662 p.

(MIRA 16:8)

1. Zaveduyushchiy otdelom ekonomiki Vsesoyuznogo nauchno-issledovatel'skogo instituta sakharnoy svekly (for Aref'yev).
2. Odesskiy sel'skokhozyaystvennyy institut (for Braslavets).

(Continued on next card)

AREF'YEV, T.I. — (continued). Card 1.

3. Moskovskaya sel'skokhozyaystvennaya akademiya im. K.A.Timiryazeva (for Vlasov).
4. Zaveduyushchiy otdelom ekonomiki i organizatsii Nauchno-issledovatel'skogo instituta sadovodstva im. I.V.Michurina (for Dubrova).
5. Moskovskiy Gosudarstvennyy universitet im. M.V.Lomonosova (for Zal'tsman, Polovenko).
6. Zaveduyushchiy kafedroy organizatsii sel'skokhozyaystvennogo proizvodstva Leningradskogo sel'skokhozyaystvennogo instituta (for Kal'm).
7. Zaveduyushchiy otdelom ekonomiki Nauchno-issledovatel'skogo instituta ovoshchnogo khozyaystva (for Kostseletskiy).
8. Vsesoyuznyy nauchno-issledovatel'skiy institut pitsevodstva (for Krylov).
9. Moskovskiy ekonomiko-statisticheskiy institut (for Libkind).
10. Vsesoyuznyy sel'skokhozyaystvennyy institut zaochnogo obrazovaniya (for Makarov).
11. Zaveduyushchiy otdelom ekonomiki Krasnodarskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Ogloblin).
12. Kafedra organizatsii sel'skokhozyaystvennogo proizvodstva Leningradskogo sel'skokhozyaystvennogo instituta (for Popov).
13. Zaveduyushchiy kafedroy Sovetskoy ekonomiki Vysshey partiynoy shkoly (for Sapil'nikov).
14. Voronezhskiy sel'skokhozyaystvennyy institut (for Tishchenko).
15. Leningradskiy sel'skokhozyaystvennyy institut (for Tyutin).
16. Direktor Severo-Kavkazskogo filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for Yanyushkin).

(Agriculture--Economic aspects)

KASSIROV, Leonid Nikolayevich, kand. ekonom. nauk; FYLAYEVA, A.P.,
red.; DEYEVA, V.M., tekhn. red.

[The working capital of collective farms] Oborotnye sredstva
kolkhozov. Moskva, Sel'khozizdat, 1962. 110 p. (MIRA 15:6)
(Collective farms—Finance)

KLEMYSHCHEV, P.A.; KOZLOV, Ye.G.; BELOZERTSEV, A.G.; VOLODARSKIY, D.Ya.;
GRACHEV, V.A.; KRUCHININ, M.I.; FILIMONOV, K.N.; KHLUDENEV, A.I.;
ANDREYEV, P.P.; NOVOZHILOV, V.F.; GERSHANOV, S.V.; PYLAYEVA, A.P.,
red.; BALLOD, A.I., tekhn. red.; PEVZNER, V.I., tekhn. red.

[Economic efficiency of mechanization in agriculture] Ekonomicheskaya effektivnost' mekhanizatsii sel'skogo khoziaistva. Moskva, Izd-vo sel'khoz.lit-ry, zhurnalov i plakatov, 1961. 230 p.
(MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva (for all except Pylayeva, Ballod, Pevzner).
(Farm mechanization)

BOGOMOLOVA, L.G., doktor med.nauk; ZALKIND, Ye.S., prof.; PYLAYEVA, A.V.,
nauchnyy sotrudnik; CHAPLYGINA, Z.A., starshiy nauchnyy sotrudnik

Use of dry blood preparations in the treatment of some skin ulcers.
Akt.vop.perel.krovi no.4:165-167 '55. (MIRA 13:1)

1. Laboratoriya sukhikh preparatov krovi Leningradskogo instituta
perelivaniya krovi (zav. laboratoriyey - doktor med.nauk L.G. Bogo-
molova).

(BLOOD AS FOOD OR MEDICINE) (SKIN--DISEASES)

L 46959-66 EWP(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/HY/JG
ACC NR: AP6031722 SOURCE CODE: UR/0370/66/000/005/0132/0136

AUTHOR: Kornilov, I. I. (Moscow); Pylayeva, Ye. N. (Moscow)

ORG: none

TITLE: Niobium-nickel system

SOURCE: AN SSSR. Izvestiya. Metally, no. 5, 1966, 132-136

TOPIC TAGS: niobium nickel system, niobium nickel alloy, system phase diagram, alloy structure, alloy property

ABSTRACT: A phase diagram of the niobium-nickel system (see Fig. 1.) has been plotted on the basis of data obtained by physicochemical analysis of 31 alloys containing from 26.5 to 100 at% niobium. Alloys were melted from 99.7%-pure niobium and N-00-grade pure nickel. Two compounds were identified: Nb₅Ni formed at 1350C by a reaction between two solid solutions, and NbNi formed at 1570C which dissolves 49-61 at% of niobium at 800C. The solubility of nickel in niobium was found to be: 8 at% at

Card 1/3

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L 46959-66

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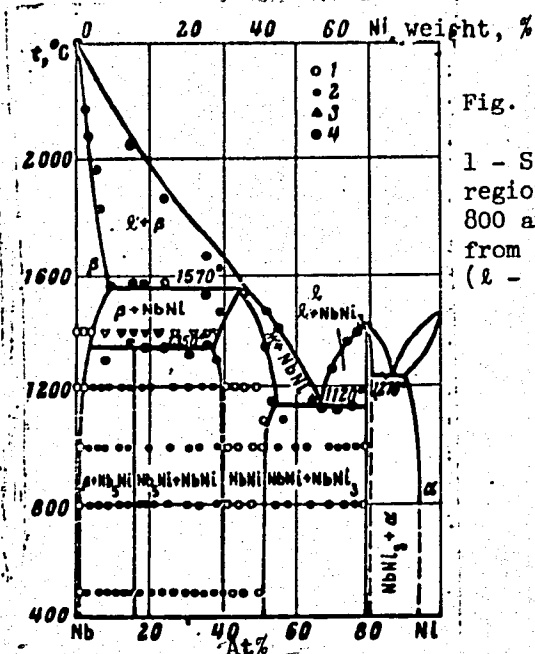


Fig. 1. Phase diagram of Nb-Ni system

1 - Single-phase region; 2 - two-phase region after quenching from 1200, 1000, 800 and 500C; 3 - same after quenching from 1400C; 4 - thermal analysis data (l - denotes liquid).

Card 2/3

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ACC NR: AP6031722

1570C, 4 at% at 1400C, 2 at% at 1200C, about 1.5 at% at 1000C and 1 at% at 800C. The hardness of the alloy increases with increasing nickel content and reaches its maximum of about 640 kg/mm² at 40 at% nickel. Orig. art. has: 4 figures and 1 table. [TD]

SUB CODE: 11 / SUBM DATE: 27Mar65/ ORIG REF: 003/ OTH REF: 001/
ATD PRESS: 5088

Card 3/3 JS

PYL'NEVA, I. N.; MOSOLOV, I. V.

Use of urea by the corn root system. Dokl. AN SSSR 156 no. 1:
214-217 My '64. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut udobreniy i
agropochvovedeniya. Predstavleno akademikom A. L. Kursanovym.

PYTASZ, M.

On the biological significance of conversion of ammonia into urea.
Acta physiol. polon. 10 no.3:325-335 May-June 59.

1. Z Zakładu Fizjologii A. M. we Wrocławiu Kierownik: prof. dr A.
Klisiecki.
(AMMONIA, metab.) (UREA, metab.)

PYTASZ, M.

Excretion of urea from the organism. Acta physiol. polon. 10 no.3:
337-348 May-June 59.

1. Z Zakladu Fizjologii A. M. we Wroclawiu Kierownik: prof. dr
A. Klisicki.

(UREA, metab.)

PYLAYEV, A. V.

62/49T16

UssR/Chemistry - Adsorption Chemistry - Hydrogen Sulfide Jun 49

"Research on the Adsorption Properties of Oxidized Carbon for Hydrogen Sulfide and Vapors of Benzene," S. A. Toropov, A. V. Pylayev, 3. 1/2 pp

"Zhur Prikl Khim" Vol XIII, No 6

Discovered that oxidized carbon derived from boiling carbon in a 10% solution of HNO_3 for 1-3 hours has the greatest adsorption qualities for hydrogen sulfide and vapors of benzene. Carbon which has first adsorbed its maximum of

770

62/49T16

UssR/Chemistry - Adsorption (Contd) Jun 49

hydrogen sulfide has increased adsorption properties with respect to benzene vapors. Submitted 15 Feb 48.

770

62/49T16

PYLAYEV, B.F.; SHUSTER, R.L.

Utilization of titanium-containing sands of the Fergay Depression deposits. Vest.AN Kazakh.SSR 13 no.1(142):94-99 Ja '57.
(Kustanay Province--Titanium ores) (MLRA 10:4)

PYLAYEV, B. F.

(5)
 "New type of flotation agents [foaming agents] from essential oils of Kazakhstan wormwood. M. I. Goryaev, B. F. Pylayev, I. M. Shalaginov, and T. G. Gutsalyuk. *Vestnik Akad. Nauk Kazakh. S.S.R.* 10, No. 11 (Whole No. 103), 108-18 (1953).—For flotation of Pb ores the formulations of Kazakhstan wormwood essential oils with $ZnSO_4$, NaCN, and $BuOCS_2K$ gave results comparable with those obtained with pine oil. For Zn ore flotation the formulation uses $CuSO_4$ and $BuOCS_2K$. The oils obtainable from some 80 varieties of the plant in that region can be divided into 2 groups: those contg. up to 80% cineole and close in compn. to eucalyptus oil, and those composed largely of mixts. of terpene hydrocarbons, terpene alcs., and variable amounts of cineole and camphor. The latter group can be used directly for flotation work. The methods of extn. from naturally growing plants are discussed and numerous results of flotation expts. with various ore specimens are given.
 G. M. Keseleroff

GORYAYEV, M.I.; PYLAYEV, B.P.; SHABANOV, I.M.; GUTSALYUK, T.G.

New kind of flotation agents (frothers) from volatile oils of Kazakhstan
wormwoods. Vest. AN Kazakh. SSR 10 no.10:106-118 0 '53. (MLRA 6:11)
(Flotation) (Kazakhstan--Wormwood) (Wormwood--Kazakhstan)
(Essences and essential oils)

YEVDOKIMOV, A.A., inzh.; PYLAYEV, N.I., inzh.; CHESTYAKOV, I.D., inzh.

Study of the cavitation resistance of materials using an
impact-erosion test stand under field conditions. [Trudy]
IMZ no.10-241-252 '64. (MIRA 18:12)

PYLAYEV, N.I., inzh.

Resistance to cavitation of electrode hard facings. [Trudy]LMZ no.11:
217-228 '64. (MIRA 17:12)

EXTRACT, 1964, 1965.

Effect of the intensity of relaxation on the strength of
materials. (Nizhny Novgorod) 1964, 1965.

(NINA 1312)

PYLAYEV, S. A., POPOV, P. I. SHEVCHENKO, F. P. and PAVLOV, L. V.

"Compilation of Photomaps of Relief Regions by Means of Photography of the Inverse Model of the Location"

Sb. ref. Tsentr. n-1. in-ta geod., aeros'yomki i kartogr., No 1, 1954, 35-3 47

Continuation of work started by the authors in 1952, consisting in printing a single picture of the upper region, marking the zone boundaries, cutting along these boundaries and gluing the cut parts together. This picture serves for the preparation of an inverse model, by leaving the upper zones down and lifting the lower regions. The photography of this model has a minimum of distortion for relief and is processed further by conventional methods. (RZhAstr, No 10, 1955)

SO: Sum-No. 787, 12 Jan 56

ALEKSEYEV, P.; IVANOVA, A., red.; ~~PIKAYEVA~~, A., red.; TIKHONOVA, Ye.,
red.; BALLOD, A., tekhn. red.; FEDOTOVA, A., tekhn. red.

[Land and men] Zemlia i liudi. Moskva, Izd-vo sel'khoz. lit-
ry, zhurnalov i plakatov, 1962. 195 p. (MIRA 15:3)
(Agriculture)

KIRILLOV, Yevgeniy Aleksandrovich; FYLAYEVA, A.P., red.; TRUKHINA, O.N.,
tekhn. red.

[Finances of collective farms] Finansy kolkhozov. Moskva,
zd-vo sel'khoz. lit-ry, zhurnalov i plakatov, 1962. 183 p.
(MIRA 15:3)

(Collective farms--Finance)

KOLESNIEV, Samuil Georgiyevich, prof., doktor ekonom.nauk, akademik;
MAKAROV, N.P., prof., nauchnyy red.; PYLAYEVA, A.P., red.;
PROKOP'YEVA, L.N., tekhn.red.

[Organization of socialist agricultural enterprises] Organi-
zatsiya sotsialisticheskikh sel'skokhozyaystvennykh predpriyatii.
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 399 p.

(MIRA 13:12)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.
Lenina (for Kolesnev).

(Collective farms)

(State farms)

LOPATINA, Ol'ga Fedorovna, kand. ekon. nauk; PYLAYEVA, A.P., red.;
GUREVICH, M.M., tekhn. red.; SOKOLOVA, M.N., tekhn. red.

[Establishing work norms in agricultural enterprises] Normiro-
vanie truda v sel'skokhoziaistvennykh predpriyatiyakh. Mo-
skva, Sel'khozizdat, 1962. 271 p. (MIRA 16:3)
(Agriculture--Labor productivity)

GOLIKOV, V.A., kand. ist. nauk; FILAYEVA, A.P., red.; KOBYAKOVA,
G.N., tekhn. red.

[The most important stage in the development of agricultural
cooperation in the U.S.S.R., 1921-1929] Vazhneishii etap
razvitiia sel'skokhoziaistvennoi kooperatsii v SSSR (1921-
1929 gg.) Moskva, Sel'khozizdat, 1963. 199 p.
(MIRA 16:12)

(Agriculture, Cooperative)

PIZENGOL'TS, Mikhail Zakharovich; PYLAYEVA, A.P., red.; GUREVICH,
M.M., tekhn. red.; OKOLELOVA, Z.P., tekhn. red.

[Accounting for expenditures and financial results on col-
lective farms] Uchet zatrat i finansovykh rezul'tatov v
kolkhozakh. Moskva, Sel'khozizdat, 1963. 205 p.
(MIRA 16:12)

(Collective farms--Accounting)

SIDELKIN, N.P.; PYLAYEVA, A.P., red.; TRUKHINA, O.N., tekhn.red.

[What is new in collective and state farm accounting] No-
voe v kolkhoznom i sovkhoznom uchete. Moskva, Izd-vo
"Kolos," 1964. 154 p. (MIRA 17:3)

1. Glavnyy redaktor zhurnala "Uchet i finansy v kolkhozakh i
sovkhoza" (for Sidelkin).

IVANOV, A.Ye.; KOZLOVSKIY, N.G.; KAL'CHENKO, S.V., redaktor; MART'YANOV, F.M., redaktor; PEROV, S.V., redaktor; PYLAYEVA, A.P., redaktor; TERESHCHENKO, N.I., redaktor; OVCHINNIKOVA, A.N., redaktor; RAKITINA, Ye.D., redaktor; VALLOD, A.I., tekhnicheskij redaktor; VNSKOVA, Ye.I., tekhnicheskij redaktor

[Handbook for directors of state farms] Spravochnaya kniga direktora sovkhosa. Izd. 3-e, perer. Moskva, Gos. izd-vo sel'khoz. lit-ry. Pt.1.1956. 952 p. Pt.2.1956. 1016 p. (MLM 10:3)
(State farms)

BORODANOV, N.M.; GRIGOR'YEV, S.T.; PANYUKOVA, Z.S.; SOKOLOV, V.M.; PYLAYEVA,
A.P., red.; GOR'KOVA, Z.D., tekhn. red.; GUREVICH, M.M., tekhn. red.

[Collective-farm accountant's reference book] Spravochnik bukhgaltera
kolkhoza. Moskva, Gos. izd-vo sel'khoz. lit-ry zhurnalov i plakatov,
1961. 583 p. (MIRA 1469)

(Collective farms—Accounting)

NIKOL'SKIY, Nikolay Klavdiyevich; BARYSHNIKOV, A.I.; VERBOV, G.D.;
PYLAYEVA, A.P., red.

[Manual on accounting on state farms and other state agricultural enterprises] Spravochnik po bukhgalterskomu uchetu v sovkhozakh i drugikh gosudarstvennykh sel'skokhoziaistvennykh predpriatiakh. Moskva, Kolos, 1965. 415 p.
(MIRA 18:5)

PALLADINA, M.I., redaktor-sostavitel'; PYLAYEVA, A.P., starshiy redaktor;
TIKHONOVA, Ye.M., redaktor; FIEDOTOVA, A.F., tekhnicheskii redaktor

[Reference manual for chairmen of collective farms] Spravochnik
predsedatelia kolkhoza. Moskva, Gos. izd-vo selkhoz. lit-ry.
Vol.1. 1956. 702 p. Vol.2. 1956. 919 p. (MLRA 9:11)
(Agriculture--Handbooks, manuals, etc.)

SHERMENEV, M.K., kand. ekon. nauk; MOTOV, S.I.; KOLYCHEV, L.I.,
kand. ekon. nauk; BRAGINSKIY, L.V.; GRIGOR'YEV, S.T.;
PYLAYEVA, A.P., red.; BALLOD, A.I., tekhn. red.

[Finance and the issuing of credit to agricultural enter-
prises] Finansy i kreditovanie sel'skokhoziaistvennykh pred-
priati. Moskva, Sel'khozizdat, 1963. 342 p.

(MIRA 16:5)

(Agriculture—Finance)

ZIN'KOV, Z.Ye.; PYLAYEVA, L.I.

Theory of dissociation extraction: separation of mixed
aniline, monomethylaniline, and dimethylaniline. Zhur.prikl.khim.
35 no.4:887-892 Ap '62. (MIRA 15:4)

1. Permskiy khimicheskiy zavod imeni S.Ordzhonikidze.
(Aniline)

PYLAYEVA, L.I., inzh.

Coordination conference on tractor air conditioners. Khol.
tekh. 40 no.4:65 JI-Ag '63. (MIRA 16:8)

(Tractors--Air conditioning)

5.5230

77759

SOV/75-15-1-21/29

AUTHORS: Zin'kov, Z. Ye., Pylayeva, L. I.

TITLE: Analysis of Mixtures of Aniline, Mono- and Dimethylaniline

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol 15, Nr 1,
pp 109-111 (USSR)

ABSTRACT: Acidimetric analysis of aniline, monomethylaniline, and dimethylaniline mixtures in aqueous solutions was studied. A short review of other methods is also given. The proposed new method consists of the following steps. Determine the total acid consumption for neutralization of amines plus an excess (N ml) by dissolving 20-30 g of the amines in 200-250 ml of 1N HCl and making up to 500 ml with water; determine the excess acid (A) by titrating 50 ml of the analyzed mixture with 0.5N NaOH to pH 2.55 (using 0.1% tropeoline OO solution). The amount of nitrite needed for aniline diazotization and monomethylaniline nitrosation is determined according to well-known methods, using 50 ml of the analyzing solution; con-

Card 1/3

Analysis of Mixtures of Aniline, Mono-
and Dimethylaniline

77759

SOV/75-15-1-21/29

sumption of 0.5N nitrite solution is denoted by B ml ; consumption of acid used for aniline diazotization is determined by adding to 50 ml of the analyzed solution about 2 g of sodium bromide, B ml of 0.5N acid solution, and B ml of 0.5N nitrite solution (if $(A - B) > 5$ ml, addition of acid is not necessary). After 2-3 minutes add ice and about 20 g of NaCl and titrate the solution with 0.5N NaOH in the presence of 0.2% alcoholic solution of dimethyl yellow (at $-5, -7^{\circ}$), the amount of 0.5N NaOH solution used is denoted by C ml.

Calculation:

Content of dimethylaniline	$(0.2 - A - B)$	60.5/d%
Content of aniline	$(A + B - C)$	46.5/d %
Content of monomethylaniline	$(C - A)$	50.35/d%
if B ml of 0.5N acid was not added:		
Content of monomethylaniline	$(B + C - A)$	50.35/d%

Card 2/3

Analysis of Mixtures of Aniline, Mono-
and Dimethylaniline

77759

SOV/75-15-1-21/29

Content of aniline

(A - C)

46.5/d%

where d is the weight of the analyzed sample. The method was checked on synthetic samples and found accurate enough for technical analyses. The root-mean-square errors are:

$\sigma_{\text{aniline}} = \pm 0.34 \text{ ml}$, $\sigma_{\text{dimethylaniline}} = \pm 0.18 \text{ ml}$, $\sigma_{\text{monomethylaniline}} = \pm 0.27 \text{ ml}$, $\sigma_{\text{diazotization}} = \pm 0.12 \text{ ml}$, $\sigma_{S_1} = \pm 0.23 \text{ ml}$, $\sigma_{S_2} = \pm 0.4 \text{ ml}$ (where $S_1 = 0.2N - A$ and $S_2 = 0.2N - C$). There is 1 table; and 18 references, 1 U.S., 2 German, 15 Soviet. The U.S. reference is: Fritz, J. S., *Analyt. Chem.*, 25, 750 (1953).

ASSOCIATION:

S. Ordzhonekidze Perm Chemical Factory (Permskiy khimicheskiy zavod imeni S. Ordzhonekidze)

SUBMITTED:
Card 3/3

January 10, 1959

STREL'TSOV, Ivan Vasil'yevich; SEMENOV, Leonid Ivanovich; PYLAYEVA,
L.N., red.

[Practice in highway construction in Uzbekistan] Opyt
stroitel'stva avtomobil'nykh dorog v Uzbekistane.
Tashkent, "Uzbekistan", 1965. 134 p. (MIRA 18:12)

KASHKAROV, A.K.; KURANOVA, L.I., red.; PYLAYEVA, L.N., red.;
SOROKINA, Z.I., tekhn. red.

[Efficient utilization of alfalfa sod under cotton] 0
polnotsennom ispol'zovanii plasta liutserny kul'turoi
khlopchatnika. Tashkent, SoiuzNIKHI, 1962. 189 p.
(MIRA 17:1)

MAKHNOVSKIY, Ivan Konstantinovich; GUZEYEV, Grigoriy Fedorovich;
PYLAJEVA, L.N., red.; SAMIKOV, S., tekhn. red.

[Using aerosols in controlling apple and ermine moths in
mountain forest fruit stands in Central Asia] Primenenie
aerozolei v bor'be s iablonevoi i plodovoi moliami v gor-
nykh lesoplodovykh nasazhjeniakh Srednei Azii. Tashkent,
Redaktsionno-izdatel'skii otdel MSKh UzSSR, 1962. 60 p.
(MIRA 16:5)

(Soviet Central Asia--Moths--Extermination)

(Spraying and dusting in agriculture)

(Soviet Central Asia--Fruit--Diseases and pests)

PYLAIEVA, M., instruktor-letchik, planerist

Let's not cease work even after accomplishments. Kryl.rod. 3
no.5:8-9 My '52. (MIRA 8:8)

(Pylaeva, Marina Georgievna)

PYLAYEVA, M., master sporta; KUZAKOV, M., konstruktor.

Producing a metal glider for mass use. Kryl.rod. 6 no.3:8 Mr '55.
(Gliders (Aeronautics)) (MIRA 8:4)

PYLAYEV, N.I., inzh.; PONOMAREV, V.Ya., inzh.

Use of plastics in hydraulic turbines. *Energomashinostroenie* 11
no.3:34-36 Mr '65. (MIRA 18:6)

L 65179-65 EWT(m)/EWP(w)/EPF(g)/EPE(t)/EWA(d)/T-2/ENP(t)/EWP(z)/EWP(b)/
(N) ETC(m) MJW/JD/WJ/HN/WB

ACCESSION NR: AP5021809

UR/0114/65/000/008/0042/0042
669.14.018.8; 532.528

AUTHOR: Pylayev, N. I. (Candidate of technical sciences)

TITLE: Cavitation resistance of steels

SOURCE: Energomashinostroyeniye, no. 8, 1965, 42

TOPIC TAGS: cavitation, water turbine, stainless steel, hardness

ABSTRACT: The author disputes certain of the recommendations of A. F. Shchel-
kanov (Energomashinostroyeniye, no. 1, 1965) on increasing the cavitation re-

Card 1/2

L 65179-65

ACCESSION NR: AP5021809

differ as a function of the intensity of cavitation. Thus while at an impact rate of $v = 80$ m/sec the relative resistance of 20Kh10N10 low alloy steel is

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

HUB CODE: HE, HH

NO REF SOV: 002

OTHER: 000

Card 2/2

VALOVOY, Dmitriy Vasil'yevich; PYLAYEVA, A.P., red.; GUREVICH, M.M.,
tekhn.red.

[Electrification of agriculture] Elektrifikatsiia sel'skogo
khosiaistva. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1958.
69 p. (MIRA 12:8)
(Electricity in agriculture)

MITRYUSHKIN, Konstantin Petrovich, kand.sel'skokhoz.nauk; ORLOV, Vasilii Pavlovich, kand.sel'skokhoz.nauk; PYLAYEVA, A.P., red.; BALLOD, A.I., tekhn.red.

[In the struggle to increase agricultural production] V bor'be za pod'em sel'skogo khoziaistva. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1959. 232 p. (MIRA 12:12)
(Agriculture)

SERGEYEV, S.S., doktor ekonom.nauk; SINEVA, N.I., kand.ekonom.nauk;
PYLAYEVA, A.P., red.; DZYEVA, V.M., tekhn.red.

[Production costs on collective farms] Izdershki proizvodstva
v kolkhosakh. Moskva, Gos.isd-vo sel'khoz.lit-ry, 1958. 167 p.
(MIRA 12:7)

(Collective farms) (Agriculture--Costs)

POLEVSHCHIKOVA, Valentina Nikolayevna, kand.sel'khoz.nauk; PYLAYEVA,
L.N., red.; SOROKINA, Z.I., tekhn. red.

[Grass pests and measures for their control] Vrediteli trav i
mery bor'by s nimi. Tashkent, MSKh UzSSR, 1962. 121 p.
(MIRA 15:7)

Uzbekistan--Grasses--Diseases and pests)
(Uzbekistan--Insects, Injurious and beneficial)

L 1359-66 EWT(m)/EWP(t)/EWP(k)/EWP(b)/EWA(h)/EWA(c) JD/HW

ACCESSION NR: AP5024359

UR/0286/65/000/015/0024/0024
621.984.2

AUTHOR: Yefimov, L. A.; Sysoyev, P. M.; Pylaykin, P. A.; Shtin, L. M.;
Khirdzhlyev, S. G. 44,55 44,55 44,55 44,55

TITLE: A multilayer container for the extrusion process. Class 7, No. 173195

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 24

TOPIC TAGS: metal extrusion, metallurgic process

ABSTRACT: This Author's Certificate introduces a multilayer container for the extrusion process. The device is built up from several hoops fitted concentrically one over the other. To economize on costly steels and lighten the container, spacers are placed between two or several pairs of hoops. These spacers are made in the form of hoops which are cut away in one or several places along the generatrix.

ASSOCIATION: none

SUBMITTED: 27Mar64

NO REF SOV: 000

ENCL: 01

OTHER: 000

SUB CODE: IE, MM

Card 1/2

L 1359-65

ACCESSION NR: AP5024359

ENCLOSURE: 01

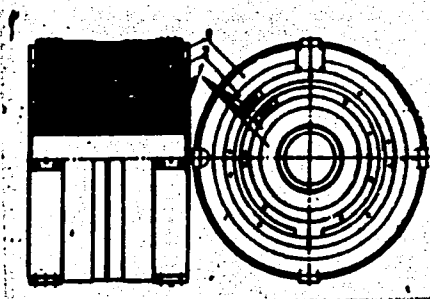


Fig. 1. 1--hoops; 2--spacer; 3--outside hoop

Card 2/2

PYLAJEVA, T. I.

p. 2

PHASE I BOOK EXPLOITATION

SOV/4087

Leningrad. Neftemaslozavody, trest

Proizvodstvo smazochnykh materialov, vyp. 5 (Production of Lubricants, No. 5).
Leningrad, Gostoptekhizdat, 1959. 70 p. (Series: Obmen proizvodstvennym
opytom) Errata slip inserted. 1,700 copies printed.

Sponsoring Agencies: RSFSR. Gosudarstvennyy planovyy komitet.
Rosglavneftesnabsbyt; Leningradskiy opytный neftemaslozavod imeni Shaumyana.

Ed.: I.Ye. Dobkin; Executive Ed.: G.M. Ragina; Tech. Ed.: A.B. Yashchurzhinskaya.

PURPOSE: This booklet is intended for industrial and organic chemists, and engineers interested in the synthesis and properties of lubricants.

COVERAGE: The collection contains 9 articles dealing with methods of producing lubricants having special properties indicating additives which will impart such properties. The synthesis of raw materials for producing lubricants and additives is also discussed. No personalities are mentioned. Figures, tables and references accompany the articles.

Card 1/3

Production of Lubricants, No. 5

SOV/4087

TABLE OF CONTENTS:

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Card 2/3

Production of Lubricants, No. 5

SOV/4087

Slobodin, Ya. M., S.S. Al'tman, and K.D. Tammik. Production of Sulfurous
Antilwear Additives Based on Ethylene Sulfide and Fatty Acids 58

Slobodin, Ya. M. Inclusion Compounds and Their Use in the Petroleum
Industry 63

AVAILABLE: Library of Congress

Card 3/3

JA/rn/gap
8-25-60

Pylyayeva, T.I.
GRIGOR'YEVA, A.S.; PYLAYEVA, T.I.

Change of properties of synthetic solid oil during storage. Proizv.
smaz. mat. no.3:15-21 '57. (MIRA 10:12)

1. Leningradskiy neftemaslozavod im. Shauvyana.
(Lubrication and lubricants)

BOBMENTOVA, G.G.; PILAYIVA, V.M.; BURMANOVA, N.M.; ATAYEV, M.A. (Ashkhabad)

Outbreak of salmonella induced toxoinfection due to consumption
of camel meat. Vop. pit. 24 no.1:89 Jan-F '65.

(MIRA 18:9)

KIYATKHANOV, B.A.; MAMAYEV, V.I.; PYLAYEVA, V.M.; PANKOV, V.N.

Outbreak of staphylococcal food toxicoinfection. Zdrav.Turk.
6 no.4:36-37 J1-Ag '62. (MIRA 15:8)

1. Iz sanitarno-epidemiologicheskogo upravleniya Ministerstva
zdravookhraneniya Turkmenskoy SSR (nachal'nik B.A.Kiyatkhanov) i
Respublikanskoy sanitarno-epidemiologicheskoy stantsii (glavnyy
vrach V.I.Mamayev).

(STAPHYLOCOCCAL DISEASE) (FOOD POISONING)

SOV/126-8.2.5/26

AUTHORS: Kornilov, I.I., Pylayeva, Ye.N. and Volkova, M.A.

TITLE: Investigation of the Properties of Titanium Alloys.
IV. Properties of Alloys of the Ternary Ti-Al-Fe System

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 8, Nr 2,
pp 182 - 185 (USSR)

ABSTRACT: The ternary-phase diagram at 550 °C is given in Figure 1. Samples containing up to 20% Al+Fe were prepared by powder metallurgical methods. The high temperature strength was tested by the centrifugal method using a stress of 15 kg/mm² at temperatures from 550 to 700 °C. The change in the degree of deformation up to 100 hours for various alloys is given in Figure 2. From this it can be seen that minimum high-temperature strength is shown by two-phase alloys (Curves 1 and 2). The microstructure of an alloy containing 3.75% Al and 11.25% Fe is given in Figure 3. The light constituent is a solution and the dark is a eutectoid of α +TiFe. The high-temperature strength of alloys containing Fe and Al in the ratio 1:1 is greater (Curves 3 and 4). The microstructure of an

Card 1/3

SOV/126-8-2-5/26

Investigation of the Properties of Titanium Alloys. IV. Properties of Alloys of the Ternary Ti-Al-Fe System

alloy containing 6.5% Al and 6.5% Fe is given in Figure 4. The high-temperature strength of ternary alloys containing 3.75% Al and 1.25% Fe is even greater. The microstructure of such an alloy is shown in Figure 5. It consists of solid solution with a small amount of eutectoid in the grain boundaries. The greatest high-temperature strength is shown by alloys containing 0.5% Fe and 1-8% Al (Curves 7 and 8). These alloys correspond to the limiting region of transition to a two-phase structure. Curves of high-temperature strength against time are given in Figure 6. These show that pure Ti has the least strength and an alloy containing 7.5-8% Al and 0.5% Fe has the greatest strength. Figure 7 shows the microstructure of this alloy after test. It consists of solid solution with a finely dispersed phase. As in binary Ti-Al alloys, increase in Al content leads to increase in strength but decrease in plasticity. Increasing the Fe content to greater than 0.5% causes a decrease in high-temperature strength.

Card2/3

SOV/126-8-2-5/26

Investigation of the Properties of Titanium Alloys. IV. Properties of Alloys of the Ternary Ti-Al-Fe System

There are 8 figures and 13 Soviet references.

ASSOCIATION: Institut metallurgii im. Baykova
(Institute of Metallurgy imeni Baykov)

SUBMITTED: March 25, 1958

Card 3/3

GE CHZHI-MIN [Ko Chih-ming]; KORNILOV, I.I.; PYLAYEVA, Ye.N.

Phase diagram of the system titanium - aluminum - molybdenum in
the region of alloys rich in titanium. Zhur.neorg.khim. 8
no.2:366-372 F '63. (MIRA 16:5)

1. Institut metallurgii imeni A.A.Baykova AN SSSR.
(Titanium-aluminum-molybdenum alloys) (Phase rule and equilibrium)

ACCESSION NR: AT4007022

S/2598/63/000/010/0014/0021

AUTHOR: Ko. Chih-Ming. Py*layeva, Ye. N.

TITLE: Investigation of phase equilibrium in titanium-rich alloys of the system Ti-Al-Mo

SOURCE: AN SSSR. Institut metallurgit. Titan i yego splavy*, no. 10, 1963.
Issledovaniya titanovy*kh splavov, 14-21

TOPIC TAGS: titanium alloy, titanium aluminum molybdenum alloy, titanium aluminum molybdenum system, alloy structure, phase boundary, alloy microhardness

ABSTRACT: In view of the limited data in the literature on the Ti-Al-Mo system, the authors used roentgenographic and microstructural analysis as well as hardness determinations to study the phase composition of alloys with a constant Al content of 0.5-40% and a content of Al + Mo of up to 50% (See Fig. 1 in the Enclosure). Alloys were prepared from 99.82% pure iodide Ti, 99.99% pure Al and 99.9% pure Mo in an arc furnace, annealed at 1200C for 5 hrs. and 1100C for 100 hrs., and then quenched in water from 1100, 800 or 600C. Microstructure was studied by etching with HF + HNO₃ (1:1) in glycerol and ethanol, while hardness was determined with the Vickers apparatus using a load of 10 kg. Subsequently, the same specimens were annealed further at 900, 800, 700 and 600C for periods of 100-600 hours and again quenched in water. Some

Card 1/5

ACCESSION NR: AT4007022

representative microstructures are illustrated and data on the phase composition in relation to quenching temperature are tabulated. As shown by isothermal cross sections at 100, 800 and 600C (see Fig. 2 in the Enclosure), the Ti-rich corner of the Ti-Al-Mo system at 600C shows a small area of α -solid solution, which decreases still further with increasing temperature. The limiting solubility of Mo in the triple α -solid solution at 600C was found to be 0.8-1.0%. As shown in Fig. 3 of the Enclosure, the maximal hardness in this system is obtained in the triphasic and biphasic (β - δ) alloys with a high content of Al and Mo, independent of quenching temperature. The triple γ -solid solution based on TiAl has a relatively low hardness. The triple α -solid solution has a variable hardness with a minimum at about 15% Al. Orig. art. has: 1 table and 4 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute, AN SSSR)

SUBMITTED: 00

ENCL: 03

SUB CODE: MM

NO REF SOV: 006

OTHER: 011

Card 2/5

ACCESSION NR: AT4007022

ENCLOSURE: 01

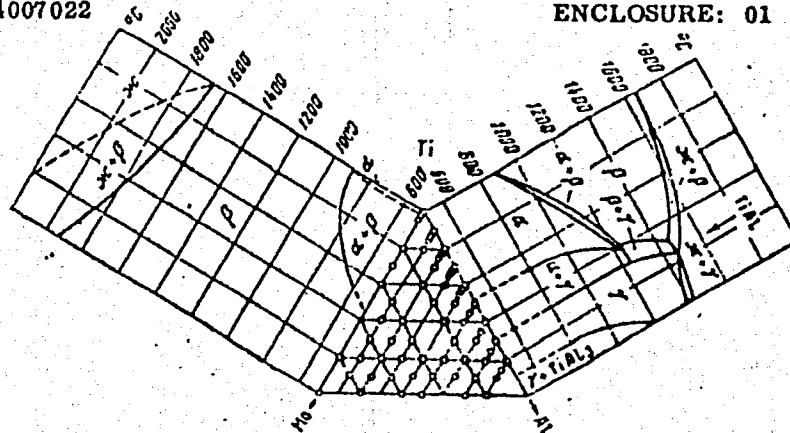


Fig. 1. Cross sections and composition of the investigated alloys of the ternary system Ti-Al-Mo, and phase diagrams of the double systems Ti-Al and Ti-Mo on the Ti side.

Card 3 / 5

ACCESSION NR: AT4007022

ENCLOSURE: 02

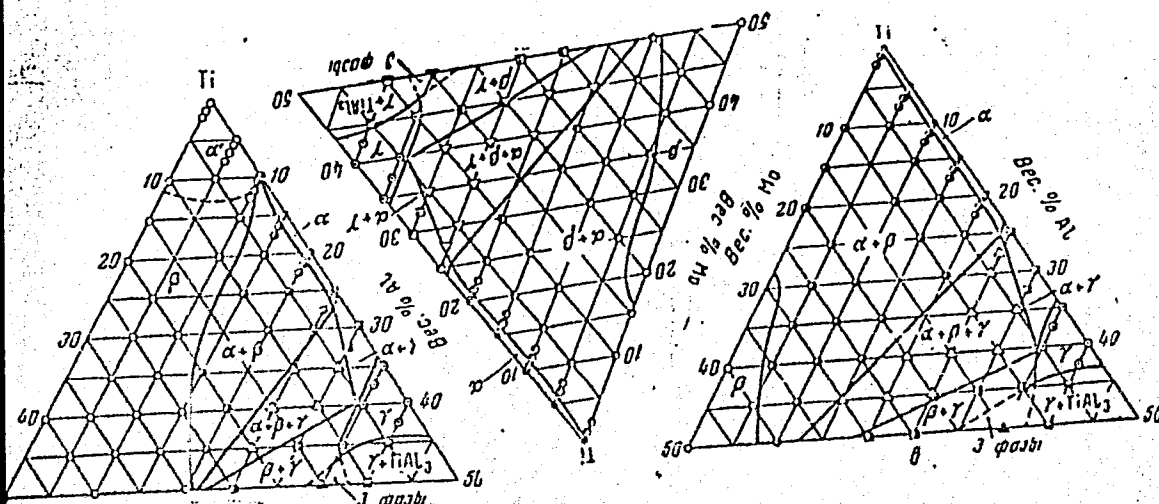


Fig. 3. Isothermal cross sections of part of the ternary system Ti-Al-Mo at: a. 1100°C, b. 800°C and c. 600°C. In each case, the left side is wt. % Mo and the right side is wt. % Al. Below the graphs, it says "3 phases".

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ACCESSION NR: AT4007022

ENCLOSURE: 03

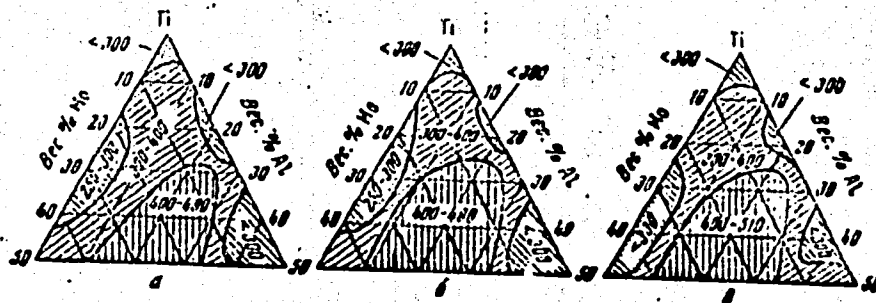


Fig. 3. Relationship between hardness and composition for alloys of the ternary system Ti-Al-Mo based on Ti, quenched at: a. 1100, b. 800 and c. 600C. In each case, the left side is wt. % Mo and the right side is wt. % Al.

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ACCESSION NR: AT4007023

S/2598/63/000/010/0022/0026

AUTHOR: Ko, Chih-Ming; Py*layeva, Ye. N.

TITLE: Study of phase transformations in the system Ti-Al-Mo.

SOURCE: AN SSSR. Institut metallurgii. Titan i yego splavy*, no. 10, 1963.
Issledovaniya titanovy*kh splavov, 22-26

TOPIC TAGS: titanium alloy, titanium aluminum molybdenum alloy, titanium aluminum molybdenum system, phase transformation

ABSTRACT: Since Mo by itself decreases the temperature of the $\alpha \rightarrow \beta$ transformation in Ti and increases the stability of the β phase, while Al has the opposite effect, the authors carried out a thermal analysis of the Ti-Al-Mo system with an Al + Mo content of up to 50%. Alloy samples were annealed at 600C for 600 hrs. and then quenched in water, after which the softening point was determined by the contact method using an optical pyrometer (heating rate = 6-8 degrees/min.) and the solidification point was determined by the differential method using the N. S. Kurnakov pyrometer. As shown in Fig. 1 of the Enclosure, the thermal effect of the polymorphic Ti phase transformation is less

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marked during heating than during cooling. The melting points and transformation temperatures of 30 triple systems with Ti contents from 55-94.5%, Al contents from 5-35% and Mo contents of 0.5-10% are tabulated. As shown in Fig. 2 of the Enclosure (isotherms of the solidus point in the high-Ti region), Al uniformly decreases the melting point of Mo contents up to 5%, but after that the effect becomes more complex; addition of Mo to Ti-Al increases the solidus temperature. Finally, the authors present nine polythermic cross sections parallel to the Ti-Mo side of the phase diagram (constant Al content) and three cross sections parallel to the Ti-Al side (constant Mo content). Orig. art. has: 1 table and 4 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute, AN SSSR)

SUBMITTED: 00

ENCL: 02

SUB CODE: MM

NO REF SOV: 004

OTHER: 004

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ACCESSION NR: AT4007023

ENCLOSURE: 01

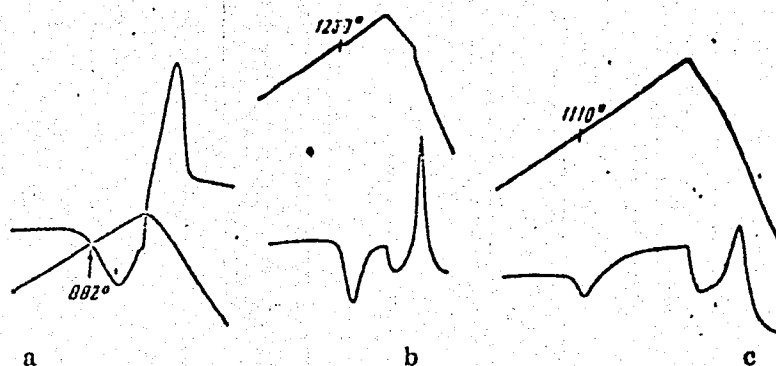


Fig. 1. Typical thermograms for: a. pure Ti; b. Ti - 20% Al; c. Ti - 15% Al and 0.5% Mo.

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ENCLOSURE: 02

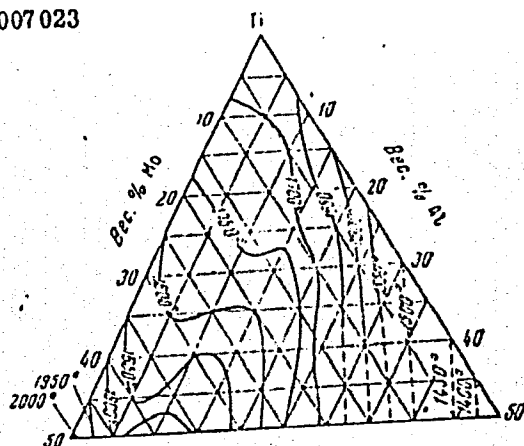


Fig. 2. Isotherms of the solidus point of alloys in the Ti corner of the Ti-Al-Mo system. Left side = wt. % Mo; right side = wt. % Al.

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